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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/047,527	10/23/2001	Anthony M. Chasser	1700A1	3962

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PPG INDUSTRIES, INC.  
Intellectual Property Department  
One PPG Place  
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EXAMINER

BISSETT, MELANIE D

ART UNIT

PAPER NUMBER

1711

DATE MAILED: 08/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

### Application No.

10/047,527

### Applicant(s)

CHASSER ET AL.

### Examiner

Melanie D. Bissett

### Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

### A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

1) Responsive to communication(s) filed on 07 July 2003.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

4) Claim(s) 3-7,9,13-15 and 18 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 3-7,9,13-15 and 18 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All b) Some \* c) None of:  
1. Certified copies of the priority documents have been received.  
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

1) Notice of References Cited (PTO-892)  
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4 .

4) Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.  
5) Notice of Informal Patent Application (PTO-152)  
6) Other:

### **DETAILED ACTION**

1. The rejections based on 35 USC 102 using Nakae or Laver as primary references have been withdrawn. However, all other rejections have been maintained. Also, a rejection based on 35 USC 112 has been added as necessitated by amendment.

#### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. Claim 4 recites the limitation "claim 19" in line 2. There is insufficient antecedent basis for this limitation in the claim. For the purpose of this Office action, the examiner will treat claim 4 as dependent on claim 18.

#### ***Claim Rejections - 35 USC § 102***

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
6. Claims 3, 5-6, 9, 13-15, and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Geary et al. as evidenced by Laver.
7. From a prior Office action:

4. Geary discloses thermosetting powder coating compositions comprising carboxylic acid-containing polyesters and beta-hydroxyalkylamide curing agents (col. 1 lines 34-39). Examples show bis-hydroxyethylamide compounds (example A) and carboxylic acid group-containing polyester polymers having  $M_n$  values of ~3500-4500. Example 1A suggests the combination of 72.4% by weight carboxylic acid-containing polyester, 4.3% by weight of a bis-hydroxyethylamide, and 1.5% by weight of Irganox® 1076. Laver provides the structure of Irganox® 1076, a phenolic compound having branched butyl groups in positions ortho to the hydroxy group. Example 2A shows the combination of carboxylic acid-containing polyester, carboxylic acid-containing acrylic polymer, a bis-hydroxyethylamide, and Irganox® 1076, anticipating the applicant's claim 15. Also, comparative examples show the combination of carboxylic acid-containing polyester, triglycidyl isocyanurate, and Irganox® 1076, anticipating the applicant's claims 10-11. The coatings are applied to metal substrates, including aluminum (col. 5 lines 36-38).
8. Additionally, since the compositions of the invention contain all of the claimed composition components, it is the examiner's position that the inventive composition and claimed composition would inherently possess the same improved corrosion properties.
9. Claims 3, 5-6, 13-15, and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Chasser et al. as evidenced by Laver.
10. From a prior Office action:
  6. Chasser discloses curable powder coating compositions comprising polymers with functional groups and curing agents reactive with the polymers that are applied to aluminum substrates (abstract). The polymers are selected from carboxylic acid-containing polyesters having  $M_n$  values of preferably 2000-3000 (col. 3 lines 9-24), carboxylic acid-containing acrylic polymers (col. 3 lines 59-64), carboxylic acid-containing polyurethane polymers (col. 4 lines 25-27), and epoxy-functional polymers (col. 4 lines 60-62). Polymers are used in preferred amounts of 50-85% by weight (col. 5 lines 38-43). Curing agents include beta-hydroxyalkylamides and triglycidylisocyanurate (col. 5 lines 50-67). Irganox antioxidants are noted as suitable additives (col. 6 lines 36-44). Example A shows the combination of a carboxylic acid-functional polyester, 12.9% by weight triglycidylisocyanurate, and ~1% by weight Irganox® 1076. Laver provides the structure of Irganox® 1076, a phenolic compound having branched butyl groups in positions ortho to the hydroxy group. Example C shows the combination of carboxylic acid-containing polyester, a beta-

hydroxyalkylamide curing agent, and a phenolic UV stabilizer having substituents at ortho positions to the hydroxy group (Tinuvin 900).

11. Additionally, since the compositions of the invention contain all of the claimed composition components, it is the examiner's position that the inventive composition and claimed composition would inherently possess the same improved corrosion properties.

***Claim Rejections - 35 USC § 103***

12. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

13. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chasser et al. as evidenced by Laver and in view of Nakae et al.

14. From a prior Office action:

15. Chasser and Laver apply as above, noting the use of reactive polymers, curing agents, and phenolic antioxidant compounds but failing to mention the use of 2,6-di-tert-butyl-4-methyl-phenol. Nakae teaches powder coating compositions comprising reactive polymers, curing agents, and phenolic antioxidants, where certain phenol antioxidants, including 2,6-di-tert-butyl-4-methyl-phenol, are preferred because of their melting points (col. 3 lines 8-67). Optimum melting points are chosen for improved blocking resistance and melt processability. It is the examiner's position, therefore, that it would have been *prima facie* obvious to choose 2,6-di-tert-butyl-4-methyl-phenol as a phenolic antioxidant in Chasser's invention to form coatings having improved blocking resistance and melt processability.

15. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Geary et al. as evidenced by Laver.

16. From a prior Office action:

17. Geary and Laver apply as above, failing to exemplify the use of polymers having equivalent weights within 200-2,500. However, Geary notes that additional crystalline functional polyesters,

having equivalent weights of 150-600, can be included to provide additional flexibility and/or impact resistance to the coating. It is the examiner's position that it would have been *prima facie* obvious to include functional polyesters having equivalent weights of 150-600 in Geary's powder coating compositions to provide flexibility and impact resistance to the resultant coatings.

17. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Geary et al. as evidenced by Laver and in view of Nakae et al.
18. From a prior Office action:

19. Geary and Laver apply as above, noting the use of carboxyl-functional acrylic polymers, beta-hydroxyalkylamide curing agents, and phenol antioxidants, but failing to mention the use of 2,6-di-tert-butyl-4-methyl-phenol. Nakae teaches powder coating compositions comprising reactive polymers, curing agents, and phenolic antioxidants, where certain phenol antioxidants, including 2,6-di-tert-butyl-4-methyl-phenol, are preferred because of their melting points (col. 3 lines 8-67). Optimum melting points are chosen for improved blocking resistance and melt processibility. It is the examiner's position, therefore, that it would have been *prima facie* obvious to choose 2,6-di-tert-butyl-4-methyl-phenol as a phenolic antioxidant in Geary's invention to form coatings having improved blocking resistance and melt processibility.

### ***Response to Arguments***

19. In response to the applicant's argument that the Irganox 1076 compound relied upon for the rejections using Geary and Chasser does not suggest a phenolic compound having alkyl or branched alkyl substituted groups, it is noted that Laver has been used to show the specific structure of Irganox 1076. See column 48, structure A. The passage relied upon by the applicant, col. 2, Figure 1, does not indicate the structure of Irganox 1076. It is the examiner's position that the compound used by both Geary and Chasser teaches a phenol compound having t-butyl groups adjacent to the hydroxy group on the aromatic ring.

20. Regarding the applicant's argument that Tinuvin 144 does not meet the applicant's claimed limitations for the phenol compound, it is noted that Chasser teaches the use of Irganox 1076, which anticipates the applicant's claimed limitations.

21. In response to applicant's argument that there is no teaching by Chasser or Geary that a substitution of phenol compound or a choice of specific polyester would teach the improvement of filiform corrosion resistance, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

22. It is the examiner's position that the improvement of filiform corrosion resistance is inherent to the compositions of Chasser and Geary, since the compositions use the same components as those in the present claims. Thus, although the references may not expressly mention the corrosion improvements, the prior inventors possessed the inventive compositions, which would result in such an improvement. The applicant has not shown a structural difference between the claimed compositions and the prior art.

### ***Conclusion***

23. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melanie D. Bissett whose telephone number is (703) 308-6539. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (703) 308-2462. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

mdb



James J. Seidleck  
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